



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,232	12/14/2000	Scott A. Sirrine	65856-0025	9140

10291 7590 05/04/2006

RADER, FISHMAN & GRAUER PLLC
39533 WOODWARD AVENUE
SUITE 140
BLOOMFIELD HILLS, MI 48304-0610

EXAMINER

DAY, HERNG DER

ART UNIT	PAPER NUMBER
----------	--------------

2128

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/736,232	Applicant(s) SIRRINE, SCOTT A.	
	Examiner Herng-der Day	Art Unit 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to Applicant's Amendment ("Amendment") to Office Action dated November 2, 2005, faxed February 2, 2006.

1-1. Claims 1, 2, 7, and 10-16 have been amended. Claim 8 has been canceled. Claims 17-21 have been added. Claims 1-7 and 9-21 are pending.

1-2. Claims 1-7 and 9-21 have been examined and rejected.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 12-16 and 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps.

See MPEP § 2172.01.

3-1. Claim 12 recites the limitations "determining one of the torsional acceleration and the driveline inertia of the desired vehicle driveline configuration; and displaying a driveline inertia of the desired vehicle driveline configuration" in lines 7-10 of the claim. However, when one of ordinary skill in the art trying to make and/or use the invention after the step "determining the torsional acceleration", the "displaying a driveline inertia" step cannot be performed because the driveline inertia has not been determined unless it is a predetermined constant. In other words, omitting the essential step of "determining a driveline inertia" amounts to a gap between the steps.

Art Unit: 2128

3-2. Claims not specifically rejected above are rejected as being dependent on a rejected claim and provide no non-optional determining a driveline inertia step or its equivalent step.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 7, 9, 10, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Eaton Corporation (hereinafter “Eaton”), “Eaton Truck Components Bulletin, TRIB-9701”, 1997, including the DAA program (The screen captures of DAA program was provided by Applicant on July 14, 2005 in response to Requirement for Information - 37 C.F.R. §1.105, dated May 16, 2005, as “DOS-Based Driveline Angle Analyzer (DAA) Screen Captures” (hereinafter “Screen Captures”)).

5-1. Regarding claim 7, Eaton discloses a method of diagnosing and correcting driveline angles and lengths of components of a vehicle driveline, comprising the steps of:

selecting a representative vehicle driveline from a plurality of saved driveline configurations (Screen Captures, on Documentation Entry Screen, page 3, user may load data file);

entering measurements of the vehicle driveline into a graphical user interface program (Screen Captures, on Driveline Dimension Entry Screen, page 4, user may enter the

Art Unit: 2128

measurements, e.g., ANGLE, PHASE, LENGTH, or AIR BAG HEIGHT, of the vehicle driveline configuration);

determining one of a torsional acceleration and an inertia of the vehicle driveline based on the entered measurements of the driveline angles and lengths of the components (Screen Captures, RESULTS on Driveline Dimension Entry Screen, page 4); and

enabling a user to interactively change the entered measurements of the vehicle driveline to determine one of the torsional acceleration and the inertia of the vehicle driveline (Screen Captures, on Driveline Dimension Entry Screen, page 4, user may change the entered measurements, e.g., ANGLE, PHASE, LENGTH, or AIR BAG HEIGHT, of the vehicle driveline configuration and receive the RESULTS of the changed accelerations).

5-2. Regarding claim 9, Eaton further discloses the step of printing a worksheet to aide a user in entering of the measurements for the vehicle driveline (Screen Captures, on Driveline Dimension Entry Screen, page 4, user may print a blank entry screen as a worksheet by clicking PRINT (F7) icon).

5-3. Regarding claim 10, Eaton further discloses the step of printing results from the determination (Screen Captures, Report Printout Screen, page 5).

5-4. Regarding claim 18, Eaton further discloses wherein the step of selecting includes comparing a picture of a selectable driveline configuration to the vehicle driveline (Eaton, for example, three vehicle driveline configurations have been disclosed in the last two pages of Eaton Bulletin for user to compare).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5, 12-15, 17, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eaton Corporation (hereinafter "Eaton"), "Eaton Truck Components Bulletin, TRIB-9701", 1997, including the DAA program (The screen captures of DAA program was provided by Applicant on July 14, 2005 in response to Requirement for Information - 37 C.F.R. §1.105, dated May 16, 2005, as "DOS-Based Driveline Angle Analyzer (DAA) Screen Captures" (hereinafter "Screen Captures")), in view of Creger, U.S. Patent 5,848,371 issued December 8, 1998.

7-1. Regarding claim 1, Eaton discloses a method of determining at least one of a torsional acceleration and an inertia of a vehicle driveline configuration comprising the step of

entering measurements for the vehicle driveline configuration into a graphical user interface program (Screen Captures, on Driveline Dimension Entry Screen, page 4, user may enter the measurements, e.g., ANGLE, PHASE, LENGTH, or AIR BAG HEIGHT, of the vehicle driveline configuration).

Eaton fails to expressly disclose determining an inertia of the vehicle driveline.

Creger discloses a method for determining an estimate of a driveline torque using equations 8-11 (column 6, lines 26-28) because driveline torque is a useful value to monitor in predicting future problems (column 1, lines 13-24). Creger also discloses the diagnostic

Art Unit: 2128

controller 110 records or stores the ECM information in a memory for download into an external computer for future analysis (column 2, lines 36-39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Eaton to incorporate the teachings of Creger to obtain the invention as specified in claim 1 because driveline torque is a useful value to monitor in predicting future problems as suggested by Creger.

7-2. Regarding claim 2, Eaton further discloses the step of selecting a representative vehicle driveline configuration from a plurality of driveline configurations prior to entering measurements of the vehicle driveline configuration into the graphical user interface program (Eaton, for example, three vehicle driveline configurations have been disclosed in the last two pages of Eaton Bulletin for user to select).

7-3. Regarding claim 3, Eaton further discloses the graphical user interface program includes a corrective mode for enabling a user to interactively change the entered measurements of the vehicle driveline configuration to determine one of the torsional acceleration and the inertia of the vehicle driveline configuration (Screen Captures, on Driveline Dimension Entry Screen, page 4, user may change the entered measurements, e.g., ANGLE, PHASE, LENGTH, or AIR BAG HEIGHT, of the vehicle driveline configuration and receive the RESULTS of the changed accelerations).

7-4. Regarding claim 4, Eaton further discloses the step of printing a worksheet to aide a user in entering of the measurements for the vehicle driveline configuration (Screen Captures, on Driveline Dimension Entry Screen, page 4, user may print a blank entry screen as a worksheet by clicking PRINT (F7) icon).

Art Unit: 2128

7-5. Regarding claim 5, Eaton further discloses the step of printing results from the determination of one of the torsional acceleration and the inertia for the vehicle driveline configuration (Screen Captures, Report Printout Screen, page 5).

7-6. Regarding claim 12, Eaton discloses a method of determining one of a torsional acceleration and a driveline inertia of a desired vehicle driveline configuration, comprising the steps of:

selecting a vehicle driveline configuration from a plurality of driveline configurations (Eaton, for example, three vehicle driveline configurations have been disclosed in the last two pages of Eaton Bulletin for user to select);

entering measurement data for the desired vehicle driveline configuration (Screen Captures, on Driveline Dimension Entry Screen, page 4, user may enter the measurements, e.g., ANGLE, PHASE, LENGTH, or AIR BAG HEIGHT, of the vehicle driveline configuration);

determining one of the torsional acceleration and the driveline inertia of the desired vehicle driveline configuration (Screen Captures, RESULTS on Driveline Dimension Entry Screen, page 4).

Eaton fails to expressly disclose displaying a driveline inertia of the desired vehicle driveline configuration. Nevertheless, Eaton's Driveline Dimension Entry Screen provides the capability to display results.

Creger discloses a method for determining an estimate of a driveline torque using equations 8-11 (column 6, lines 26-28) because driveline torque is a useful value to monitor in predicting future problems (column 1, lines 13-24). Creger also discloses the diagnostic

Art Unit: 2128

controller 110 records or stores the ECM information in a memory for download into an external computer for future analysis (column 2, lines 36-39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Eaton to incorporate the teachings of Creger to obtain the invention as specified in claim 12 because driveline torque is a useful value to monitor in predicting future problems as suggested by Creger.

7-7. Regarding claim 13, Eaton further discloses the step of enabling a user to interactively change the entered measurements of the desired vehicle driveline configuration to determine a different one of the torsional acceleration and the inertia of the vehicle driveline configuration (Screen Captures, on Driveline Dimension Entry Screen, page 4, user may change the entered measurements, e.g., ANGLE, PHASE, LENGTH, or AIR BAG HEIGHT, of the vehicle driveline configuration and receive the RESULTS of the changed accelerations).

7-8. Regarding claim 14, Eaton further discloses the step of printing a worksheet to aide a user in entering of the measurements for the desired vehicle driveline configuration (Screen Captures, on Driveline Dimension Entry Screen, page 4, user may print a blank entry screen as a worksheet by clicking PRINT (F7) icon).

7-9. Regarding claim 15, Eaton further discloses the step of printing results from the determination of one of the torsional acceleration and the inertia for the desired vehicle driveline configuration (Screen Captures, Report Printout Screen, page 5).

7-10. Regarding claim 17, Eaton further discloses selecting a representative vehicle driveline from a plurality of saved driveline configurations, wherein the step of selecting includes comparing a picture of a selectable driveline configuration to the vehicle driveline (Screen

Art Unit: 2128

Captures, on Documentation Entry Screen, page 3, user may load data file; Eaton, for example, three vehicle driveline configurations have been disclosed in the last two pages of Eaton Bulletin for user to compare and select).

7-11. Regarding claim 19, Creger further discloses wherein the driveline inertia is a drive inertia (a second lumped driveline inertia, column 2, lines 60-61).

7-12. Regarding claim 20, Creger further discloses wherein the driveline inertia is a coast inertia (the lumped driveline inertia, column 3, lines 13-15).

7-13. Regarding claim 21, Eaton further discloses selecting a representative vehicle driveline from a plurality of saved driveline configurations (Screen Captures, on Documentation Entry Screen, page 3, user may load data file).

8. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teaching of Eaton Corporation (hereinafter "Eaton"), "Eaton Truck Components Bulletin, TRIB-9701", 1997, including the DAA program (The screen captures of DAA program was provided by Applicant on July 14, 2005 in response to Requirement for Information - 37 C.F.R. §1.105, dated May 16, 2005, as "DOS-Based Driveline Angle Analyzer (DAA) Screen Captures" (hereinafter "Screen Captures")), and Creger, U.S. Patent 5,848,371 issued December 8, 1998.

8-1. Regarding claim 6, Eaton discloses a method of determining at least one of a torsional acceleration and an inertia of a vehicle driveline configuration in claim 1. Eaton also discloses a Driveline Dimension Entry Screen at page 4 including RESULTS of acceleration values and a SAVE (F1) icon.

Eaton fails to expressly disclose the step of saving results from the determination of one of the torsional acceleration and the inertia for the vehicle driveline configuration as an image file. However, saving a screen as an image file is well known to one of ordinary skill in the relevant art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Eaton to incorporate the well known method of saving as an image file to obtain the invention as specified in claim 6 because saving a screen as an image file is only one of many saving file options.

8-2. Regarding claim 16, Eaton discloses a method of determining one of a torsional acceleration and a driveline inertia of a desired vehicle driveline configuration in claim 12. Eaton also discloses a Driveline Dimension Entry Screen at page 4 including RESULTS of acceleration values and a SAVE (F1) icon.

Eaton fails to expressly disclose the step of saving results from the determination of one of the torsional acceleration and the inertia for the vehicle driveline configuration as an image file. However, saving a screen as an image file is well known to one of ordinary skill in the relevant art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Eaton to incorporate the well known method of saving as an image file to obtain the invention as specified in claim 16 because saving a screen as an image file is only one of many saving file options.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eaton Corporation, "Eaton Truck Components Bulletin, TRIB-9701", 1997, including the DAA

Art Unit: 2128

program (The screen captures of DAA program was provided by Applicant on July 14, 2005 in response to Requirement for Information - 37 C.F.R. §1.105, dated May 16, 2005, as “DOS-Based Driveline Angle Analyzer (DAA) Screen Captures”).

9-1. Regarding claim 11, Eaton discloses a method of diagnosing and correcting driveline angles and lengths of components of a vehicle driveline in claim 7. Eaton also discloses a Driveline Dimension Entry Screen at page 4 including RESULTS of acceleration values and a SAVE (F1) icon.

Eaton fails to disclose expressly the step of saving results from the determination as an image file. However, saving a screen as an image file is well known to one of ordinary skill in the relevant art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Eaton to incorporate the well known method of saving as an image file to obtain the invention as specified in claim 11 because saving a screen as an image file is only one of many saving file options.

Applicant's Arguments

10. Applicant argues the following:

10-1. Claim Rejections - 35 U.S.C. § 112

(1) “Applicant has included a step of ‘determining’ in independent claim 1” (page 6, paragraph 2, Amendment).

10-2. Claim Rejections - 35 U.S.C. § 102

(2) "SCREEN CAPTURES does not teach determining the inertia of any portion of the evaluated driveline" (page 7, paragraph 4, Amendment).

(3) "SCREEN CAPTURES does not teach selecting a representative driveline" (page 7, paragraph 5, Amendment).

(4) "SCREEN CAPTURES does not teach displaying a driveline inertia" (page 7, paragraph 6, Amendment).

(5) "claim 3 recites 'wherein the graphical user interface program includes a corrective mode.' These teachings are not taught in the prior art of record" (page 8, paragraph 1, Amendment).

10-3. Claim Rejections - 35 U.S.C. § 103

(6) "SCREEN CAPTURES does not teach every limitation of dependent claims 1, 7 and 12, as required in *In re Royka*, and accordingly, dependent claims 6, 11, and 16 are patentable by being dependent on an allowable base claim" (page 8, paragraph 5, Amendment).

Response to Arguments

11. Applicant's arguments have been fully considered.

11-1. Applicant's argument (1) is persuasive. The rejections of claims 1-6 under 35 U.S.C. 112, second paragraph, in Office Action dated November 2, 2005, have been withdrawn.

11-2. Applicant's arguments (2)-(4) and (6) are moot in view of the new ground(s) of rejection. The rejections of claims 1-16 under 35 U.S.C. 102(b)/103(a) in Office Action dated November 2, 2005, have been withdrawn.

Art Unit: 2128

11-3. Applicant's argument (5) is not persuasive. Based on the Eaton program Applicant mailed July 14, 2005, in response to Requirement for Information - 37 C.F.R. §1.105, dated May 16, 2005, at page 4, the Driveline Dimension Entry Screen, for example, let the user enter values and/or select options without restrictions and also display the results. Therefore, as a matter of fact, it provides the functionality as in a corrective mode.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The Examiner can normally be reached on 9:00 - 17:30.

Art Unit: 2128

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kamini S. Shah can be reached on (571) 272-2279. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Herng-der Day
May 1, 2006

H.D.

*Thai Phan
Thai Phan
Patent Examiner
Au: 2128*